

Notes on the Tuna and Frigate Mackerel from Ratnagiri¹

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(With one plate)

Tuna fishery is being well exploited in countries like the United States of America, Japan, and Australia. Although potentialities exist for similar exploitation in India, our tuna fishing is conducted on a comparatively small scale. Six species of tuna have so far been recorded from the Indian Ocean: three by Day (1886), viz. *Euthynnus alletteratus affinis* (= *Thynnus thunnina*), *Katsuwonus pelamis* (= *Thynnus pelamis*), and *Neothunnus macropterus* (= *Thynnus macropterus*); one by de Beaufort (1951), viz. *Kishinoella tonggol*; and two by Jones (1958), viz. *Auxis thazard* and *Auxis tapeinosoma*.

Ratnagiri, on the coast of Maharashtra State, is singularly fortunate in having a good tuna fishery which is of considerable importance to the local fishermen. During the course of investigation on this fishery off Ratnagiri, the following four species have, so far, been recorded :

Scientific Name	Common English Name	Vernacular Name
<i>Euthynnus alletteratus affinis</i> (Cantor)	Little Tuna	Bibya Gedar
<i>Auxis thazard</i> (Lacépède)	Frigate Mackerel	Gedari
<i>Kishinoella tonggol</i> (Bleeker)	Blue-fin Tuna	Khavalya Gedar
<i>Neothunnus macropterus</i> (Temminck & Schlegel)	Yellow-fin Tuna	Pimp

Of these four species nearly equal quantities of two species, viz. *Euthynnus alletteratus affinis* and *Kishinoella tonggol*, form more than nine-tenths of the total catch of tuna landed at Ratnagiri. It is reported by fishermen that specimens of Oceanic Skipjack, *Katsuwonus pelamis* (Linnaeus), are also occasionally found in Ratnagiri, but I have so far not come across any specimen of this species.

¹ Communicated by Dr. C. V. Kulkarni, Director of Fisheries, State of Maharashtra.

As there is some confusion with regard to the identification of tuna fish, (Serventy, 1956), a field key is presented for the identification of different species of tuna found in the Indian Ocean, along with some notes on the variation in the number of gill-rakers in *Auxis thazard* and *Kishinoella tonggol*.

KEY TO THE IDENTIFICATION OF INDIAN TUNA (cf. Plate)

1. Scales confined to the fore part of the body (the corselet) and along the lateral line. Base of the first dorsal fin equal or longer than head
Fam. : KATSUWONIDAE

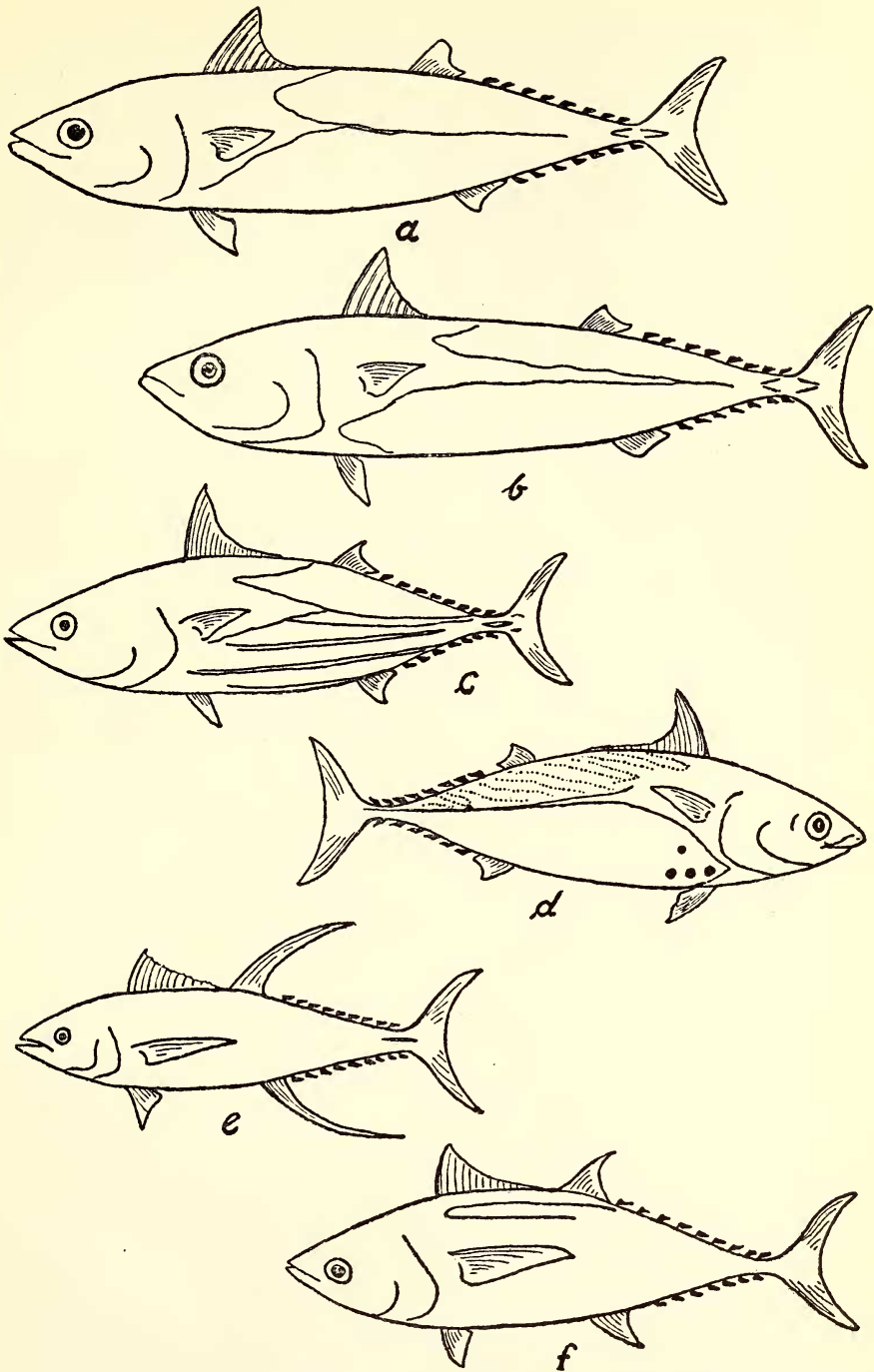
2. Body completely covered with scales and the base of the first dorsal fin shorter than head.
Fam. : THUNNIDAE

Fam. : KATSUWONIDAE

3. Wide interspace between the first and second dorsal fins Genus : *Auxis* 5
4. The first and the second dorsal fins close together .. 7
5. Corselet having not more than four rows of scales in the band below the position of the second dorsal fin ..
Auxis thazard (Lacépède)
6. Corselet having 7 to 12 rows of scales in the band below the position of the second dorsal fin
Auxis tapeinosoma Bleeker
7. Four or five dark stripes along the sides and belly ..
Katsuwonus pelamis (Linnaeus)
8. Three to five black spots below the pectoral base ..
Euthynnus alletteratus affinis (Cantor)

Fam. : THUNNIDAE

9. Pectorals long, extending beyond the origin of the second dorsal fin. Air bladder present. Second dorsal and anal fin and finlets yellow
Neothunnus macropterus (Temminck & Schlegel)



a. *Auxis thazard* (Lacépède); b. *Auxis tapeinosoma* Bleeker; c. *Katsuwonus pelamis* (Linnaeus); d. *Ethynnus alletteratus affinis* (Cantor); e. *Neothunnus macropterus* (Temminck & Schlegel); f. *Kishinoella tonggol* (Bleeker)

